

REMARKS

In the Official Action, the Examiner rejected claims 1-20. In this Amendment and Response, the Applicants amended claim 1 to clarify the unique aspects of the present technique and to expedite allowance of the pending claims 1-20. No new matter has been added by this amendment. Applicants respectfully request reconsideration and allowance of the pending claims in view of the foregoing amendment and the following remarks.

Claim Rejections – 35 U.S.C. § 102

The Examiner rejected claims 1, 2, and 6 under U.S.C. § 102 as being anticipated by Klein et al., U.S. Patent No. 6,186,800. The Examiner also rejected claims 1, 2, 5, and 6 under U.S.C. § 102(e) as being anticipated by Paquin, U.S. Patent No. 6,424,538. Applicants respectfully traverse these rejections.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Klein et al. Do Not Anticipate Claims 1, 2, and 6

As discussed below, the claimed technique *does* have patentably distinct elements not found in the references cited by the Examiner. For example, amended claim 1 recites,

inter alia, "positioning the mounting stud *through* the mounting hole" in the circuit board. In contrast, Klein et al. teaches a mounting boss 10a engaged with a bracket 9a on only one side of a motherboard 2a, such that the mounting boss 10a *never extends through* the motherboard 2a. Col. 2, line 62 – Col. 3, line 1; Col. 4, lines 40-46; Col. 8, lines 35-37. Instead, a first end 19a of the mounting boss 10a is *biased against* the lower surface of the motherboard 2a. Col. 5, lines 34-37; Col. 8, lines 1-3 and 18-22. Although Klein et al. illustrates an opening 21 in the motherboard 2a, the illustrated opening 21 is *not for insertion* of the mounting boss 10a. Figure 2; Col. 5, lines 42-54; Col. 8, lines 5-11. As explicitly described by Klein et al., the opening 21 accepts a screw to secure the motherboard 2a to the mounting boss 10a. However, the mounting boss 10a always remains on one side of the motherboard 2a opposite from the screw's head, such that the screw biases the lower surface of the motherboard 2a toward the first end 19a of the mounting boss 10a. In fact, the mounting boss 10a cannot extend through the opening 21, because the screw would no longer serve its function of securing the motherboard 2a to the mounting boss 10a. Accordingly, the Klein et al. reference lacks the recited feature of "positioning the mounting stud *through* the mounting hole," as recited by claim 1. In view of this omitted claim recitation, independent claim 1 and its respective dependent claims are believed to be patentable over the Klein et al. reference.

Paquin Does Not Anticipate Claims 1, 2, 5, and 6

In addition to the features recited above, amended claim 1 recites, *inter alia*, "*positively engaging* the ground clip with *opposite sides* of the mounting stud." In contrast, the Paquin reference teaches a clip 38 attached to a circuit board 12 along an edge of an opening 40. Figures 3-5; Col. 1, lines 57-59; Col. 2, lines 52-54; Col. 3, lines 25-39 and 60-63. The clip 38 of Paquin also has a retainer portion 74 extending over the opening 40. *Id.* In operation, the retainer portion 74 of the clip 38 grips a flat top 56 (not opposite sides) of a standoff 36 inserted through the opening 40. *Id.* Not only is the contact limited to one surface, i.e., the flat top 56, but the retainer portion 74 does not and cannot positively engage opposite sides of the standoff 36. Accordingly, the Paquin reference lacks the recited feature of "*positively engaging* the ground clip with *opposite*

sides of the mounting stud," as recited by claim 1. In view of this omitted claim recitation, independent claim 1 and its respective dependent claims are believed to be patentable over the Paquin reference.

In view of the foregoing amendment and remarks, the Applicants respectfully request the Examiner withdraw the rejections of claims 1, 2, 5, and 6 under 35 U.S.C. § 102.

Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being obvious over Klein et al. and Paquin, respectively. The Examiner also rejected claims 7, 9-17, 19, and 20 under 35 U.S.C. § 103(a) as being obvious over Klein et al. in view of Delpech et al. (U.S. Patent No. 4,875,140). Finally, the Examiner rejected claims 8 and 18 under 35 U.S.C. § 103(a) as being obvious over Klein et al. in view of Delpech et al. and further in view of Sampson (U.S. Patent No. 5,108,312).

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). If the Examiner combines the teachings of the prior art to produce the claimed invention, a *prima facie* case of obviousness cannot be established absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the

desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

Dependent Claims 3 and 4

Claims 3 and 4 both depend from independent claim 1, which is believed to be patentable over the Paquin and Klein et al. references for the reasons discussed in detail above. More specifically, Klein et al. does not teach or suggest the claim recitation of "positioning the mounting stud *through* the mounting hole," while Paquin does not teach or suggest the claim recitation of "*positively engaging* the ground clip with *opposite sides* of the mounting stud." The Examiner's rejection of claims 3 and 4 does not obviate these deficiencies of Paquin and Klein et al. with respect to independent claim 1. Accordingly, claims 3 and 4 are believed to be patentable by way of their dependencies on independent claim 1.

Regarding the Paquin reference, the Applicants respectfully stress that Paquin (6,424,538) should be removed from consideration in accordance with 35 U.S.C. § 103(c) and M.P.E.P. § 706.02(l), because the present application and Paquin (6,424,538) were, at the time the invention was made, owned by, or subject to an obligation of assignment to, Compaq Information Technologies Group, L.P. Accordingly, the Applicants respectfully request the Examiner to remove Paquin (6,424,538) from consideration. After Paquin (6,424,538) is removed according to 35 U.S.C. § 103(c), the Examiner's arguments regarding Paquin are moot.

In the rejection of claim 3 and 4, the Examiner specifically argued that soldering the ground clip would have been obvious, because "soldering, as a method of attaching of components to the circuit board is well known in the art." Paper No. 6, Page 3. Essentially, the Examiner has taken Official Notice of facts outside of the record that the Examiner apparently believes are capable of demonstration as being "well-known" in the art. Therefore, in accordance with M.P.E.P. § 2144.03, the Applicants hereby seasonably traverse and challenge the Examiner's use of Official Notice. Specifically, the Applicants

To adequately
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fact is not
considered
or the
Examiner
is wrong

respectfully request that the Examiner produce evidence in support of the Examiner's position as soon as practicable during prosecution and that the Examiner add a reference to the rejection in the next Official Action. If the Examiner finds such a reference and applies it in combination with the presently cited references, the Applicants further request that the Examiner specifically identify the portion of the newly cited reference that discloses the allegedly "well known" features recited in the claims, as discussed above, or withdraw the rejection.

In view of the foregoing amendments and remarks, Applicants respectfully request that the Examiner withdraw the rejection of claims 3 and 4 under 35 U.S.C. § 103(a).

***Independent Claims 7 and 13 and
Dependent Claims 9-12 and 14-17, 19, and 20***

Independent claim 7 recites, *inter alia*, "a generally circular upper body portion having a side opening adapted to spring open as the mounting stud nose enters of the opening." Similarly, independent claim 13 recites, *inter alia*, "a plurality of ground clips, each ground clip having a generally circular upper body portion with a side opening adapted to spring open as the upper nose enters the opening." In the Office Action, the Examiner acknowledged that Klein et al. "do not disclose that a portion of clip body is adapted to spring open as the mounting stud nose enters the opening." Paper No. 6, Page 4. In view of the deficiencies of Klein et al., the Examiner turned to Delpech et al. for a teaching of a clip 10 allegedly "adapted to spring open as the mounting stud nose enters the opening." *Id.*

The Applicants respectfully traverse these rejections for the following reasons. First, as discussed in detail above, the Klein et al. reference does not teach or suggest insertion of the mounting boss 10a through a mounting hole in the circuit board, as recited by claim 13. Second, the Examiner mischaracterized the clip 10 of Delpech et al. as one that springs open *as the mounting stud nose enters the opening*, as recited by

*insertion
through a mounting
hole
is not claimed*

claims 7 and 13. Third, the Examiner has not provided a valid suggestion or motivation to combine the references. Fourth, the Delpech et al. reference teaches away from the Klein et al. reference and the present application.

First, Klein et al. teach a mounting boss 10a engaged with a bracket 9a on only one side of a motherboard 2a, such that the mounting boss 10a *never extends through* the motherboard 2a. Col. 2, line 62 – Col. 3, line 1; Col. 4, lines 40-46; Col. 8, lines 35-37. Instead, a first end 19a of the mounting boss 10a is *biased against* the lower surface of the motherboard 2a. Col. 5, lines 34-37; Col. 8, lines 1-3 and 18-22. Although Klein et al. illustrates an opening 21 in the motherboard 2a, the illustrated opening 21 is *not for insertion* of the mounting boss 10a. Figure 2; Col. 5, lines 42-54; Col. 8, lines 5-11. The remaining references also fail to obviate the deficiencies of Klein et al. Accordingly, independent claim 13 and its respective dependent claims are believed to be patentable over the cited references.

Second, regarding the actual teachings of Delpech et al., the Applicants emphasize that the clip 10 does not spring open as the ends of column 1 enter the holes 5 in boards 6. Figures 1 and 2; Col. 2, lines 22-37. Instead, the clip 10 is part of a coupling member 8, which has clips 9 that attach to each of the boards 6 *after* the column 1 is disposed between the boards 6. *Id.* Accordingly, the clip 10 cannot spring open about the column 1, much less a *nose* of the column 1, until the column 1 is *already inserted* into the holes 5. *Id.* Assuming *arguendo* that one of the ends of column 1 is a nose, the Applicants further stress that the clip 10 cannot spring open about the nose because both ends of the column 1 are inaccessibly disposed within the holes 5 when the coupling member 8 is clipped to the boards 6. *Id.* Accordingly, the Delpech et al. does not obviate the deficiencies of the Klein et al. reference. Independent claims 7 and 13 and their respective dependent claims are, therefore, believed to be patentable over the cited references.

Third, the Applicant emphasizes the lack of any motivation or suggestion to combine the references. In the Office Action, the Examiner stated:

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Klein et al grounding clip apparatus with a portion of clip body adapted to spring open ., as taught by Deplech et al, to utilize the elastic engagement of the clip and the mounting stud.

Paper No. 6, Page 4. As quoted above, the Examiner's alleged reason to combine the references provides nothing more than the alleged function of the clip 10 in view of the features recited by the present claims. The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). In the present rejection, the Examiner combined the Klein et al. and Delpech et al. references based on the *conclusory and subjective statement* that the clip 10 of Delpech et al. *could* provide an elastic engagement with the standoff 36 of Klein et al., yet the Examiner provided no reasoning as to why such a combination would or could be made. Accordingly, Applicant challenges the Examiner to produce objective evidence supporting the Examiner's alleged reason to combine the cited references.

Even if objective evidence is identified to support the Examiner's alleged reason to combine the references, the Applicant submits that one of ordinary skill in the art would not be motivated to combine the Klein et al. and Delpech et al. references. The Examiner's alleged reason to combine the references provides nothing more than the function of a clip. There is no basis for concluding that an invention would have been obvious solely because it is a combination of elements that were known in the art at the time of the invention. *Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1356, 51 U.S.P.Q.2d. 1415, 1420-21 (Fed. Cir. 1999). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Moreover, a statement that the

proposed modification would have been “well within the ordinary skill of the art” based on individual knowledge of the claimed elements cannot be relied upon to establish a *prima facie* case of obviousness without some *objective reason to combine* the teachings of the references. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999). The Examiner clearly *speculated* about the possibility of combining the reference without providing any objective evidence. Again, the Applicant challenges the Examiner to provide *objective evidence* of the requisite suggestion or motivation to combine or modify the references, rather than a mere statement of a clip’s function.

Fourth, the Examiner ignored the disclosure of Delpech et al., which clearly teaches away from a combination with the Klein et al. reference and the present application. It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983); M.P.E.P. § 2145. The Applicant further emphasizes that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959); see M.P.E.P. § 2143.01.

Turning to the cited references, Klein et al. teaches a mounting boss 10a that slidably engages a bracket 9a in a rigid manner. Col. 2, line 59 – Col. 3, line 10. In contrast, Delpech et al. explicitly teach away from such rigid mounting by emphasizing disadvantages of the prior art in the *rigid manner* of linking circuit boards. Col. 1, lines 9-29. In view of this disadvantage, the Delpech et al. reference provides: “It is the *object of the invention* to provide a support for printed circuit boards *ensuring an elasticity* between the support and the plate.” Col. 1, lines 30-32. Accordingly, Delpech et al. provide a damper 7 of a *non-rigid material* between the column 1 and the boards 6. Col. 2, lines 30-48.

In view of the foregoing passages, one of ordinary skill in the art would be discouraged from combining the *rigid* mount mechanism of Klein et al. with the *non-rigid* mount mechanism of Delpech et al. Moreover, if combined, the references would change the principle of operation of each respective device. For example, the dampers 7 of Delpech et al. require a compressive force after being disposed between the adjacent boards 6, while the sliding engagement of mounting boss 10a with the bracket 9a could not operate with such a damper. Accordingly, the Applicant respectfully requests the Examiner to withdraw the proposed combination of Klein et al. and Delpech et al.

Dependent Claims 8 and 18

Claims 8 and 18 depend from independent claims 7 and 13, respectively, which are believed to be patentable over the Klein et al. and Delpech et al. references for the reasons discussed in detail above. The Sampson reference also fails to obviate the deficiencies of the Klein et al. and Delpech et al. references. Accordingly, claims 8 and 18 are believed to be patentable by way of their dependencies on independent claims 7 and 13, respectively.


C nclusion

The Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

AMENDMENTS

Please amend claim 1 as follows:

1. (Amended) A method of electrically grounding a circuit board to a chassis comprising the steps of:

attaching an electrically conducting mounting stud to chassis;
attaching a ground clip adjacent a mounting hole in the circuit board;
positioning the mounting stud through the mounting hole; and
positively engaging the ground clip with opposite sides of the mounting stud.